STANDARD FOR ASSESSING MINERAL RIGHTS

TERMINOLOGY AND DEFINITIONS

Mineral rights, without regard to the surface rights or usage, and when not in actual development or contiguous to one, have a potential value only. Depending on the location and type of deposit, the value present usually reflects the present worth of the ultimate recovery at some future date using a capitalization rate that takes into account the risk involved. Simply stated, the present value of mineral rights is the gross value of future production, less all expenses necessary for production and allowances for depletion.

In Arkansas, there are four general classifications of mineral ownership. Each of these types are to be handled differently, and are discussed on the following pages.

1. **Mineral Leases - Non-Producing or Exploratory.** As stated in the Attorney General's Opinion number 85-133 dated June 17, 1985, these are considered exempt from ad valorem taxation.

2. **Severed Mineral Rights.** These are defined as mineral rights that are separated from the surface rights by deed. Severed mineral rights are to be assessed in the Real Estate Assessment Book on the line following the surface rights and designated as Mineral Rights Only. As an option, you may make a separate Mineral Assessment Book in the same order of legal description as the Real Estate Book.

3. **Mineral Rights Retained With the Surface Rights - No Separating Deed Issued.** For non-producing minerals, there is no separate listing. Only the surface rights are listed in the Real Estate Assessment Book. Where there is a known and proven mineral value, but no production, you may include the value with the surface value.

4. **Producing Mineral Rights.** When minerals are in active production, assessments and billings become more complicated, and must be made with care. A clear understanding of various terms and valuation procedures is important, and are defined on the following pages.

    4.1 **Operator/Producer.** These two terms are used interchangeably, and refer to the individual or company that is responsible for the lease operations and production. Most of the time (although not always), the Operator/Producer is owner of the Working Interest in the mineral operation.

    4.2 **Transporter.** This is the purchaser of the mineral being produced. Depending on the type of mineral, the Transporter can be a pipeline company, rail company, barge company, truck line, tank farm or refinery. Ownership of the mineral passes to the Transporter at the sales meter or scales.

4.3 Division Order. A Division Order, as the name implies, describes how the proceeds of the production are to be divided among the various interests. Total interests must be equal, but cannot exceed 100%. In a new lease the Operator/Producer will have the original Division Order. As changes occur in the various interests, the changes are kept track of by the Transporter and they will have the most current copy. When in doubt, check with the Operator first, and they will direct you to the proper location of the current Division Order.

Since each owner must be assessed, a new Division Order should be obtained each assessment year. The Division Order will give a list of the individual owners and their percentage of participation which is needed to make the current assessment.

In the case of the Working Interest, assessments are made in the name of, and taxes billed to the Operator/Producer. With Royalty and Overriding Interests, assessments are made, and taxes billed to each individual owner.

There are three general types of interest ownership:

4.3.1 Working Interest. The Working Interest is the person or company who owns the right (lease) to extract the mineral. The Working Interest participation is usually 87.5% (.875), although this can vary depending on any Overriding Interest as defined in 4.3.3.

4.3.2 Royalty Interest. The Royalty Interest owner(s) is the person or group of persons who own the mineral rights to the minerals being produced. Total Royalty Interest is usually 12.5% (.125) of the production value. There can be many Royalty Interest owners, each with a percent of the total Royalty Interest. Each Royalty owner's share is shown on the Division Order.

4.3.3 Overriding Interest. An Overriding Interest is similar to a Royalty Interest in that the Overriding Interest owner assumes none of the risk of the Producer. The Overriding Interest can be part of the Working Interests' 87.5% (thus reducing the Working Interest), or part of the Royalty Interests' 12.5% (reducing the total Royalty Interest). Any Overriding Interest will also be spelled out in the Division Order.

MINING.....LAND

Among the raw materials produced in Arkansas by mining and quarrying are the following: abrasives, agricultural limestone, barite, bauxite, chalk, clay, coal, crushed stone (trap rock), dolomite, fuller's earth, gem stones, gravel, gypsum, industrial sand, lead, lightweight aggregates, limestone (crushed and dimension), manganese, molybdenum, nephelinite syenite, novaculite, phosphate, rock, refractories, roofing granules (from granite deposits), sand and gravel, shale, slag, slate, stone (crushed and dimension), talc, vermiculite and zinc.

Method

The method for arriving at the value for purposes of assessment, insofar as it is applicable to land owned in fee simple (including all mineral rights), by the operating company, should be as follows:

1. The land according to its capability classification.

2. All improvements and fixed appurtenances on the land, such as buildings, roads, and all other improvements of a permanent character.

3. The mineral deposit as it is rendered by the owner and or operating company when the amount rendered is in conformity with the Assessor's evaluation.

The total of the three items above constitutes the Real Property assessment of the owner's and/or the operating company's land and mineral deposit, insofar as it applies to an active mineral deposit.

An inactive mineral deposit **should not** be assessed except in certain instances, such as proven areas, etc.

MINING.....ROYALTY

Where there is a royalty interest in a mining property such as limestone, coal, bauxite, barite, etc., the method for arriving at the market value for purposes of assessment is as follows:

1. **Limestone.** Estimated value (according to Arkansas Geological Commission) is $6.00 per ton X 12.5% (going royalty rate) = $ .75 gross royalty per ton (Assessment Coordination Division recommends using a range of $ .50 to $1.00). Deduct the necessary expenses, if any, and the sum remaining is the net royalty. Net royalty X 20% = the Assessment.

2. **Coal - Stripping Operation.** Estimated value (according to Arkansas Geological Commission) is $40.00 per ton X 12.5% (going royalty rate) = $5.00 gross royalty per ton (Assessment Coordination Division recommends using a range of $4.00 to $5.00). Deduct the necessary expenses, if any, and the sum remaining is the net royalty. Net royalty X 20% = the Assessment.

3. **Bauxite.** Estimated value (according to Arkansas Geological Commission) is $15.75 per ton X 12.5% (going royalty rate) = $1.96 gross royalty per ton (Assessment Coordination Division recommends using a range of $1.00 to $2.00). Deduct the necessary expenses, it any, and the sum remaining is the net royalty. Net royalty X 20% = the Assessment.

4. **Barite.** Estimated value (according to Arkansas Geological Commission) is $22.50 per ton X 12.5% (going royalty rate) = $2.81 gross royalty per ton (Assessment Coordination Division recommends using a range of $2.00 to $3.00). Deduct the necessary expenses, if any, and the sum remaining is the net royalty. Net royalty X 20% = the Assessment.

5. **Bromine Brine.** Estimated value (according to Arkansas Geological Commission) is $ .30 per bbl. (Assessment Coordination Division recommends using a range of $ .03 to $ .05). Deduct the necessary expenses, if any, and the sum remaining is the net royalty. Net royalty X 20% = the Assessment.

Assessment Tables

Well Production Equipment Assessed Value

(Only Applied to Working Interest)

(WPE Multiplier) = $1.00 per Vertical Foot of Well

Example: Well is 1250 feet in Vertical depth

1250 feet X $1.00(WPE Multiplier) = $1250 (Well Production Equip. Value)

$1250 (Well Production Equip. Value)
X
.20 (Assessment Rate)
=
$250 (Well Production Equip. Assessed Value)

ASSESSMENT TABLES FOR PRODUCING GAS WELLS

Formulas and Minimum Pricing Guidelines

$5.48 per M.C.F. X 365 days = $2000 Annual Value per M.C.F.

WORKING INTEREST

Formula to arrive at a Net Working Interest Assessed Value

This now has two parts:

1. Price (Annual Value per M.C.F.) X Working Interest percent % - Production Expenses (13%) X .20 Assessment Rate = Working Interest Assessed Value per M.C.F. Average Daily Production (A.D.P.)

   Example:

   $2000 (Annual Value per M.C.F.)
   X
   .875 (Working Interest percent %)
   -
   .13 (Production Expenses)
   X
   .20 (Assessment Rate)
   =
   $304 (Working Interest Assessed Value per M.C.F. Average Daily Production A.D.P.)

2. Well Production Equipment Assessed Value + Working Interest Assessed Value = Net Working Interest Assessed Value

   Example:

   $304.00 (Working Interest Assessed Value)
   +
   $250 (Well Production Equip. Assessed Value)
   =
   $554 (Net Working Interest Assessed Value)

Formula to arrive at assessed value:

Annual Value per M.C.F. **X** Royalty Interest percent % **X** .20 Assessment Rate **=**
Assessed Value per M.C.F. Average Daily Production (A.D.P.)

Example:

$2000 (Annual Value per M.C.F.)
X
.125 (Royalty Interest percent %)
X
.20 (Assessment Rate)
=
$50.00 (Assessed Value per M.C.F. A.D.P.)

The above prices reflect current averages. If contract pricing is higher or lower than $2000 per M.C.F., then you should use the contract price. Request a copy of the contract for your files for verification and documentation of using a different price.

Rounding in the above examples is to the nearest whole dollar for simplicity. In application, you may round to the nearest whole penny. Whichever rounding method you use, use it for all mineral assessments.

Note: A Division Order must be provided for each oil and gas lease or unit so individual interests can be assessed correctly. If no Division Order is provided, the total 8/8 value shall be assessed to the operator.

ASSESSMENT TABLES FOR PRODUCING OIL WELLS

The Assessment Tables are computed from the following:

1. Average price of oil on the Arkansas Market.

2. Price adjusted for severance tax and property (real estate) tax.

3. Assumptions.

   a. Price of oil per barrel - $67.80
   b. Decline rate - 30% per year - 20% on stripper
   c. Discount factor - 15.0%

WORKING INTEREST

Formula to arrive at a Net Working Interest Assessed Value

This now has two parts:

Per Well Production Class (bbls per day)	Working Interest Amount per Barrel
0 - 2*	3458
2.1 - 5	7221
5.1 - 10	9018
10.1 - 25	8695
25.1 - 50	7798
50.1 - 70	7454
70.1 & Up	7487

*** Equipment Value Only** - Minimum Assessment for any well in production.

Continued next page.

1. Amount per barrel X A.D.P. x percent % of Interest = Assessed Value

   Example:

   $7487 (Amount per barrel)
   X
   70.1 bbls. (A.D.P.)
   X
   .875 (percent % of Interest)
   =
   $459,234 (Working Interest Assessed Value)

2. Well Production Equipment Assessed Value + Working Interest Assessed Value = Net Working Interest Assessed Value

   Example:

   $459,234 (Working Interest Assessed Value)
   +
   $250 (Well Production Equip. Assessed Value)
   =
   $459,484 (Net Working Interest Assessed Value)

Injection systems may be eligible for the following reductions on the working interest only.

1. Water flood - up to 25% adjustment.
2. Enhanced Recovery - up to 50% adjustment.

OIL ROYALTY INTEREST

Formula to arrive at Royalty Interest Assessed value:

Per Well Production Class A.D.P.(bbls per day)	Royalties Interest & Overrides Amount per Barrel
0 - 2	6261
2.1 - 5	11466
5.1 - 10	11976
10.1 - 25	10549
25.1 - 50	9080
50.1 - 70	8541
70.1 & Up	8541

Amount per barrel **X** A.D.P. **X** percent % of Interest **=** Assessed Value

Example:

$8541 (Amount per barrel)
X
70.1 bbls. (A.D.P.)
X
.125 (percent % of Interest)
=
$74,840 (Royalty Interest Assessed Value)